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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/625,777	07/26/2000	Tao Chen	PA000330	7872

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Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
San Diego, CA 92121-1714

EXAMINER

ZIMMERMAN, BRIAN A

ART UNIT	PAPER NUMBER
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2635

DATE MAILED: 01/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/625,777

Applicant(s)

CHEN ET AL.

Examiner

Brian A Zimmerman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-25,28-43 and 46-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 29 and 47 is/are allowed.
- 6) ☒ Claim(s) 15-25,28,30-43,46,48-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

EXAMINER'S RESPONSE

Status of Application

In response to the applicant's amendment received on 7/26/04. The examiner has considered the new presentation of claims and applicant arguments in view of the disclosure and the present state of the prior art. And it is the examiner's position that claims 15-25,28,30-43,46,48-50 are unpatentable for the reasons set forth in this office action:

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Allowable Subject Matter

1. Claims 29 and 47 are allowed.

Claim Rejections - 35 USC § 112

2. Claims 21,24,39,42 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Support could not be found in the specification as originally filed, for processing in serial as claimed.

Claim Rejections - 35 USC § 103

1. Claims 15-18,20-28,30-36,38-46,47-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruckert (5920549), Ghosh (6018667), Willey (6138034), and Tiedemann (6216004).

Bruckert shows searching a plurality of pilot channels associated with a plurality of base stations to choose the "best" base station(s). Then the paging channels from the best base stations are further used to set up a call. Bruckert differs from the claimed invention in that it does not show the paging channels (from the plurality of base stations) in substantially overlapping time slots.

Bruckert shows soft combining the best base station signals into a composite received signal (see col. 8 lines 33-45) and making (decoding) decisions based upon the composite signal. Bruckert shows the active set of base stations are monitored and demodulated simultaneously. See col. 4 lines 49-57.

In an analogous art, Ghosh shows the advantages of having neighboring base stations synchronized to each other. Synchronized base stations imply that the paging channels substantially overlap. This decreases acquisition time. See col. 2 lines 10-22.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have synchronized the paging channels of adjacent base stations in Bruckert since Ghosh shows this reduces acquisition time.

In an analogous art, Willey teaches the use of a quick paging channel, which reduces idle handoffs. See col. 1 lines 25-35. Therefore, it would have

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been obvious to one of ordinary skill in the art at the time of the invention to have used a quick paging channel in the above-modified system since such would decrease idle handoffs.

In an analogous art, Tiedemann shows a system that uses soft handoff on common paging channels. This permits the receiver to receive the same "common" channel messages from a plurality of base stations during the transition or handoff time. Soft handoffs provide improved signal quality at the edges of cell coverage. Thresholds levels are used to select a base station during transition see col. 3 lines 25+. Therefore, it would have been obvious to have used the soft handoff common channel scheme offered by Tiedemann in order to improve signal quality at the edge of cell coverage.

Regarding the serial processing claim limitations, the examiner takes official notice that such processing is a common processing technique and would have been obvious to one of ordinary skill in the art.

Response to Arguments

Applicant's arguments filed 7/26/04 have been fully considered but they are not persuasive.

The applicant argues that the references do not simultaneously monitor each of the quick paging channels..." As pointed out above, Bruckert does show the active set of base stations monitored and demodulated simultaneously. See col. 4 lines 49-57. When combined, the teachings would provide for a mobile station that monitors the QPCH bits to decrease idle handoffs. Additionally, such

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a system (according to the listed teaching references) would monitor more than one page channel (including QPCH bits) and simultaneously process these multiple channels to improve signal quality at the edge of cell coverage.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation for combining the teachings is set forth in the rejection above.

Furthermore, Tiedemann uses soft handoff that monitors the signals from a list of neighboring base stations simultaneously to improve overall SNR.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian A Zimmerman whose telephone number is 571-272-3059. The examiner can normally be reached on Off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Horabik can be reached on 571-272-3068. The fax

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phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Brian A. Zimmerman
Primary Examiner
Art Unit 2635

BAZ